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## **BUDIDAYA PADI SAWAH IRIGASI DENGAN APLIKASI AZOLLA DAN IKAN NILA**

**Cultivation of irrigated-paddy rice with *Azolla* and Nila fish application**

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### **ABSTRACT**

This research aimed to find out effect of *Azolla* and Nila fish in cultivation of irrigated-paddy rice to increase rice production, and to find out reduction of inorganic fertilizer usage due to integration of *Azolla* and Nila fish. An experiment was carried out in Maros, South Sulawesi from December 2005 to March 2006. It was arranged in a split plot design. Results showed that *Azolla*-Nila integration in rice field increased grain by 17.05% (30.245 kg plot<sup>-1</sup>) and decreased weed growth by 20.47% (0.946 kg). *Azolla* rate of 6 t ha<sup>-1</sup> increased dry weight by 13.29% (27.937 kg), tiller number by 14.48% (16.248), weight of 1000-grain by 6.01% (22.673 g) and grain yield by 21.03% (30.245 kg plot<sup>-1</sup>) and decreased weed growth by 27.13% (0.946 kg). Interaction between *Azolla* and Nila fish did not significantly affect growth and yield. Level of land fertility (C-organic, N-total and available-P<sub>2</sub>O<sub>5</sub> and exchangeable-K) ranged from low to fair at harvest, whereas high C/N ratio on no-*Azolla* treatment with quite low pH.

**Keywords:** irrigated-paddy rice, integration, Nila fish, *Azolla*